



CLAIMS

What Is Claimed Is:

1. We claim a method for manufacturing vehicle hulls, comprising:

- 5 applying a protective coating to a bottom mold;
- applying a protective coating to a top mold;
- applying a bottom skin coat over the bottom gel coat;
- applying a top skin coat over the top gel coat;
- applying a bottom layer of bulk fiberglass over the bottom skin coat;
- 10 applying a top layer of bulk fiberglass to the top skin coat;
- applying an adhesive to the top mating portion of the top bonding surface and to
- the bottom mating portion of the bottom bonding surface;
- closing the top mold and the bottom mold together, thereby forming a connector
- out of the adhesive between the top mating portion and the bottom mating portion and
- 15 creating a piece including at least one cavity;
- forming at least one foam introduction hole through the outer surface of the piece
- into the cavity in the piece; and
- introducing foam into the cavity in the piece through the foam introduction hole.

2. The method of claim 1, wherein a space between the top mating portion and the

20 bottom mating portion filled by the adhesive is approximately between 1/8" and 3/4".

3. The method of claim 1, further comprising the step of forming at least one

ventilation hole through the outer surface of the piece into the cavity in the piece before

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the step of introducing foam into the cavity in the piece through the foam introduction hole.

- 4 . The method of claim 1, further comprising, after the step of applying a top skin coat and a bottom skin coat, the step applying reinforcements over the top skin coat and
- 5 the bottom skin coat.

5 . The method of claim 4, wherein the reinforcements comprise one of the group of phenolic and wood reinforcements.

6 . The method of claim 1, wherein the adhesive is given time to cure before the step of introducing foam occurs.

- 10 7 . The method of claim 1, further comprising the steps of:

removing air between the bottom gel coat and the bottom skin coat after the step of applying the bottom skin coat over the bottom gel coat; and

removing air between the top gel coat and the top skin coat after the step of applying the top skin coat over the top gel coat;

- 15 8 . The method of claim 7, wherein the step of removing air between the bottom gel coat and the bottom skin coat consists of applying vacuum to the bottom skin coat; and
- the step of removing air between the top gel coat and the top skin coat consists of applying vacuum to the top skin coat.

9. The method of claim 7, further comprising, after removing the air between the bottom gel coat and the bottom skin coat and the air between the top gel coat and the top skin coat, the steps of:

checking the hardness of the of the bottom skin coat and the top skin coat; and

5 grinding out air trapped between the bottom skin coat and the bottom gel coat and the air between the top skin coat and the top gel coat after the top skin coat and the bottom skin coat harden.

10. The method of claim 1, further comprising the step of removing air trapped within the skin coat.

10 11. The method of claim 1, further comprising, after the steps of applying the bottom skin coat and the top skin coat, and after allowing the bottom skin coat and the top skin coat to cure, the step of:

filling one or more running strakes in the bottom mold with putty.

12. The method of claim 1, further comprising, after the steps of applying a
15 bottom layer of bulk fiberglass over the bottom skin coat and applying a top layer of bulk fiberglass to the top skin coat, the step of removing air between the bottom layer of bulk fiberglass and the bottom skin coat and the air between the top layer of bulk fiberglass and the top skin coat.

13. The method of claim 1, wherein the step of applying a layer of bulk
20 fiberglass comprises the steps of:

applying at least one layer of chopped roving; and

applying at least one layer of knitted bi-directional reinforced fiberglass.

14. The method of claim 13, wherein reinforcements are added between the steps of applying at least one layer of chopped roving and applying at least one layer of
5 knitted bi-directional reinforced fiberglass.

15. The method of claim 1, further comprising, after the step of applying the bottom layer of bulk fiberglass and applying the top layer of bulk fiberglass, thereby forming a top bonding surface and a bottom bonding surface, the step of grinding out bumps or overlaps in the bonding surfaces before closing the top mold and the bottom
10 mold together.

16. The method of claim 1, further comprising, after the steps of applying the bottom layer of bulk fiberglass and applying the top layer of bulk fiberglass, the steps of:
placing clay on the bottom mating portion after the bottom layer of bulk fiberglass has cured;

15 test-closing the top mold and the bottom mold together;
separating the top mold and the bottom mold; and
measuring the thickness of the resulting mass of modeling clay.

17. The method of claim 16, further comprising the step of resurfacing the bottom mating portion or the top mating portion to accommodate adhesive where
20 indicated by a lack or an excess of the optimal thickness of modeling clay.

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18. The method of claim 17, wherein the optimal thickness is approximately 1/8" to 3/4".

19. A vehicle hull made in accordance with method 1.

20. A vehicle hull made in accordance with method 17.